UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant/

POSEY, JOHN Real Party in Interest :

09/767,742 Serial Number

01/23/2001 Filed

PECENER ROTO GOLFING AIDE SYSTEM For

WHITE, CARMEN D. Examiner

Group Art Unit 3714

ATTORNEY DOCKET BD46/17

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

APPLICANT'S APPEAL BRIEF (Submitted in Triplicate)

This is an appeal from the Examiner's Final Rejection of January 29, 2003.

REAL PARTY IN INTEREST

The real party in interest in this appeal is applicant John Posey.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences which will directly affect, or be directly affected by, or have a bearing on, the decision in the pending appeal.

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STATUS OF THE CLAIM

The status of the claims in this application is:

- A. TOTAL NUMBER OF CLAIMS IN APPLICATION:Claims originally filed in this application are:Claims 1 5.
- B. STATUS OF ALL THE CLAIMS.
 - 1. Claims canceled: None.
 - 2. Claims withdrawn from consideration but not

None.

canceled:

3. Claims pending: Claims 1 - 5.

4. Claims allowed: None.

5. Claims rejected: Claims 1 - 5.

6. Allowable Claims: None.

STATUS OF AMENDMENTS

A First Office Action issued July 31, 2002, which rejected Claims 1-5 under 35 U.S.C 112, second paragraph, and Claims 1-5 under 35 U.S.C. 103(a).

In response to the rejections, cited above, applicant filed an amendment which amended Claims 1 - 5. This amendment was fully responsive to the Examiner's objections and rejections.

A Final Office Action issued January 29, 2003, rejecting Claims 1 - 5 under 35 U.S.C. 103(a).

A Notice of Appeal was filed in a timely manner on April 29, 2003.

SUMMARY OF THE INVENTION

The invented device is a Golfing Aide System, which allows a golfer to "map" a course as he or she is walking or moving along the course.

The Golfing Aide System 10 has several components, the first of which is a global positioning system device 12. The global positioning system device is capable of pinpointing the accurate positions of key landmarks on the golf course for mapping of a landscape of a golf course. The global positioning system transmits and receives information regarding the position of the user. The global positioning system provides latitude and longitude information as well as the GPS grid location to the system. The system provides elevational information as well.

The system also includes a cellular technology device 14.

The cellular technology device provides standard and advanced mobile phone communication capabilities to golfers. The cellular technology device is adapted to transmit and receive information.

The system further includes a wireless modem 15. The wireless modem is able to link the system to a phone line and provide for data communication. The wireless modem can transmit and receive information.

The system includes a low power radio frequency transceiver

16. The radio frequency transceiver allows functional

communication between golfers, the clubhouse and any other entity

requiring this type of communication. The low power radio

frequency transceiver is further adapted to transmit and receive information.

The system includes a cellular digital packet data technology device 18. The cellular digital packet data technology device allows for the fast and cost effective transmission of data as required for internet access, email and the like. The cellular digital packet data technology device is adapted to transmit and receive information.

The system includes a handheld proprietary touch screen personal computer 20 for a golfer adapted to transmit and receive information between the personal computer and the global positioning system device, the cellular technology device, the wireless modem, the low power radio frequency transceiver and the cellular digital packet data technology device.

The system also includes an operating system 22. The operating system allows a golfer to interface with a computer. The operating system also allows the user to select from the various operations the system is capable of performing.

The system finally includes software 24. This software performs the necessary operations based upon the input and output of the personal computer to enable the system to work and assist the golfer. Some operations this software can perform include automated distance calculations, equipment indication, club selection, course management, scoring, statistics, cataloging courses, mapping of a landscape of a golf course and other

functions in a synchronous and beneficial fashion for improved golfing performance.

The system further includes a method of assisting golfers by mapping a landscape of a golf course comprising of multiple steps as listed below.

The method provides a system 26 having a global positioning system, personal computer, operating system and software.

The method includes a step that activates the system 28 to begin collect latitude and longitude coordinates from a global positioning system at a rate of no less than one coordinate per second.

Next, the method traces the perimeter 30 of the desired region such as a tee box, bunker, sand trap, green and fairway while the global positioning system collects all the points associated with the outline of that region.

The method ends the data collection 32 by the manual disabling of the data collection. This termination of data collection can also be done automatically. One alternative method of termination is by the system recognizing that the golfer has returned to the origin.

The method includes a step that imports a unique field 34 into the electronically traced region. The field that is inserted is representative of the region being traced. This field comes from the class of fields including colors, textures, designs and photo images which are loaded or taken from a data base of the computer.

The method further includes forming a graphic representation 36 of the newly traced region with the appropriate field displayed in the associated region with different representation for each associated region.

The method then collects a response 38 from a golfer as to whether there is another region that needs to be collected, if "Yes" return to activating step, if "No" end 40.

A person, preferably the golfer, holding a unit of the present invention will walk or ride around a specific feature of a hold on a golf course i.e. a tee box, bunker, fairway, putting green, etc. As the person moves around the feature, the software will read latitude/longitude position from the integrated global positioning system receiver. This reading will be taken at least once every second. As the person concludes the movement by returning to the starting point, the collection of the latitude/longitude points will define to immediately draw a tee box onto the screen. Similarly, walking or riding along a cart path, tree, bunker, green or any other course feature will cause that feature to be drawn to the screen. By this process, any golf course may be dynamically mapped. Realism through use of photo technology is accomplished by using portions of photo images of golf course features, stored in the computer's data base, to fill the outlines of the data points drawn to screen.

The present invention will encompass a handheld PC with the following chip sets on board: global positioning system, cellular, low power RF transceiver, cellular digital packet data,

wireless modem. Primarily these chip sets will be utilized to perform various functions for the golfer or golfing industry, as well as ancillary functions commensurate with standard Microsoft supported functions, such as internet access, word processing, spreadsheets, personal data, etc. Many non-golf related solutions can be provided due to the flexible, and powerful position reporting, and communication facilities built into the unit.

Utilizing the Microsoft Windows CE operating system, supporting the present inventions application software, the following on board modules will perform associated functions.

Global Positioning System

The present invention software will continuously poll the global positioning system receiver, and apply proprietary algorithms to determine the absolute position of the device on the surface of the earth. This position information is so precise as to deliver the accuracy required by a professional, or non professional golfer, in the determination of club selection and strategy, in playing any given shot. Additional functionality will be for the golfer, through the map generating feature of the present inventions software, to survey and automatically draw the course of his choice. This feature will allow for almost immediate play on any course in the world, eliminating the need for pre-surveyed course data. Ancillary functionality will be general geographic mapping, such that

driving instructions, or position location of any given destination will be available.

Cellular

Cellular technology will give standard, and advanced mobile phone communication capability to the golfer.

Low Power RF Transceiver

This feature will allow private, functional communication between the golfer/device and the clubhouse, or any other entity requiring that type of communication. Functionality for the golf industry would be the ability of the golf course to dynamically update the device with current pin position, wind condition, or other pertinent course information. Additionally, the golf course would use this feature to determine location and speed of play of the golfer, as well as to present advertising, or receive food and beverage orders from the player.

Cellular Digital Packet Data

This technology will allow for the fast, and cost effective transmission of data as required for Internet access, email, etc.

Wireless Modem

The modem will be the link to phone line, data communications.

Though the present invention software was developed primarily for the golfing industry, additional features will be built in to allow such things as:

If the device is lost, communications can be established and the device could supply its specific geographical location.

Parents could locate the position of their children and communicate with them easily.

The location of employees, or vehicles, or property, could be easily established.

<u>ISSUE</u>

Whether the rejections of Claims 1 - 5 under 35 U.S.C. 103(a) is proper. In support of Examiner's rejection, Examiner cites two existing patents, Karmel (6,353,743) in view of Lobb et al (5,810,680). Karmel discloses a positioning system which receives GPS and packet radio signals to determine a location at which the device is held. Lobb, like Karmel, discloses a device which is programmed to contain or download a map of a golf course. Neither cited prior art discloses a device that can construct or generate a map of a golf course.

The Examiner did not cite a patent which has come to the attention of the applicant, being U.S. Patent 6,456,938, issued to Barnard on September 24, 2002. Applicant now discloses this patent. The Barnard patent discloses a dGPS system for mapping a golf course. The difference between the Barnard patent and the present invention is that the Barnard patent utilizes a Differential Global Positioning System (dGPS), as opposed to a

Global Positioning System (GPS). The dGPS is more accurate relative to ground positioning. The inherent inaccuracies of GPS are reduced by the addition of a fixed transmitter, which allows for the calculation of intrinsic error and the correction of that error to produce a more accurate location determination. necessitation of there being a fixed transmitting tower within range of the dGPS device means that the application of the technology of the Barnard invention is limited to only those areas which are serviced by a fixed location tower. The GPS, that only depends on orbiting satellites, has a location calculation error. This error is relatively meaningless in terms of a non-military usage, such as golf course mapping. advantage of utilization of the GPS location determination is that GPS location determination is more widely utilized. means that there may be locations that are not serviced by dGPS inputs, which are serviced by GPS inputs, making the current invention more widely applicable and not subject to the limitations of the dGPS technology.

GROUPING OF CLAIMS

Claims 1 - 5 are the only Claims under consideration and can be considered as one group.

ARGUMENT

Applicant submits that the Karmel and Lobb patents do not teach the use of a GPS device to construct a map of a golf

course. The newly cited Barnard patent does use a dGPS in place of a GPS, however, dGPS has limited application whereas GPS is world wide, lending wider applicability to the present GPS device as described in the current application.

CONCLUSION

It is requested that the rejection of Claims 1 - 5 be withdrawn and the present application be allowed and passed to issue.

Reconsideration, a reversal of the Examiner's position, and a Notice of Allowance are requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing Appeal Brief is being deposited with the U.S. Postal Service with sufficient First Class postage addressed to: Mail Stop Appeal Brief - Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

JUNE 24, 2003

DATE

Jeanne M. Carrell



What is the wind as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. A golfing aide system for assisting golfer Juland 2003 improving their game comprising, in combination TECHNOLOGY CENTER R3700

a global positioning system device used to accurately locate positions of key landmarks on \underline{a} golf course for mapping of a landscape of a golf course, the global positioning system device being able to transmit and receive information;

a cellular technology device providing standard and advanced mobile phone communication capabilities to golfers, the cellular technology device being able to transmit and receive information;

a wireless modem being able to link the system to a phone line and provide for data communication, the wireless modem being able to transmit and receive information;

a low power radio frequency transceiver allowing functional communication between golfers, the clubhouse and any other entity requiring this type of communication, the low power radio frequency transceiver being able to transmit and receive information;

a cellular digital packet data technology device allowing for the fast and cost effective transmission of data as required for intercomputer access, email and the like, the cellular digital packet data technology device being able to transmit and receive information;

a handheld proprietary touch screen personal computer for a golfer being able to transmit and receive information between the personal computer and the global positioning system device, the cellular technology device, the wireless modem, the low power radio frequency transceiver and the cellular digital packet data technology device;

an operating system to allow a golfer to interface with the computer; and

software to perform a plurality of programed functions to enable the system to input, provide and store information which would assist the golfer by providing a plurality of forms of information and functions including automated distance calculations, equipment indication, club selection, course management, scoring, statistics, cataloguing courses, mapping of a landscape of a golf course, and other functions in a synchronous and beneficial fashion for improved golfing performance, with the mapping function allowing a golfer to input data to construct a map of a course by input from the golfer's handheld computer.

2. A golfing aide system for assisting golfers and improving their game comprising, in combination:

a plurality of electronic devices selected from a class of electronic devices which include such devices as a global positioning system device, cellular technology device, a wireless modem, a low power radio frequency transceiver, and cellular

digital packet data technology device each being capable of transmitting and receiving information;

a handheld proprietary touch screen personal computer for a golfer being programmed and able to transmit and receive information with any of a plurality of devices;

an operating system to allow a golfer to interface with the computer; and

software to perform programmed functions based upon the input and output of the personal computer to enable the system to input, provide and store information which would assist the golfer by performing a plurality of functions such as automated distance calculations, equipment indication, club selection, course management, scoring, statistics, cataloguing courses, golf course mapping and other functions in a synchronous and beneficial fashion for improved golfing performance, with the mapping function allowing a golfer to input data to thereby construct a map of a golf course.

3. A method of assisting golfers and improving their game comprising, in combination, the steps of:

providing a global positioning system device being capable of accurately locating positions of key landmarks of a golf course, the global positioning system device adapted to transmit and receive information and to map a landscape of a golf course;

providing a cellular technology device providing standard and advanced mobile phone communication capabilities to golfers,

the cellular technology device being able to transmit and receive information:

providing a wireless modem being able to link the system to a phone line and provide for data communication, the wireless modem being able to transmit and receive information;

providing a low power radio frequency transceiver allowing functional communication between golfers, the clubhouse and any other entity requiring this type of communication, the low power radio frequency transceiver being able to transmit and receive information;

providing a cellular digital packet data technology device allowing for the fast and cost effective transmission of data as required for intercomputer access, email and the like, the cellular digital packet data technology device being able to transmit and receive information;

providing a handheld proprietary touch screen personal computer for a golfer;

transmitting and receiving information between the personal computer and the global positioning system device, the cellular technology device, the wireless modem, the low power radio frequency transceiver and the cellular digital packet data technology device;

providing an operating system to allow a golfer to interface with the computer; and

providing software to perform programmed operations based upon the input and output of the personal computer to enable the

system to work and assist the golfer for automated distance calculations, equipment indication, club selection, course management, scoring, statistics, cataloguing courses, and other functions in a synchronous and beneficial fashion for improved golfing performance.

4. A method of assisting golfers by mapping a landscape of a golf course comprising, in combination:

providing a system having a global positioning system, a personal computer, operating system and software;

activating the system to begin collecting latitude and longitude coordinates from a global positioning system at a rate of no less than one coordinate per second;

tracing a perimeter of a desired region such as a tee box, bunker, sand trap, green and fairway with the global positioning system collecting thereby collecting information regarding any one of a plurality of locations which are associated with the outline of a region which is desired to be mapped;

ending the data collection by a manual disabling of the data collection;

importing a unique field into an electronically traced region, the field being representative of the region being traced;

forming a graphic representation of a newly traced region with an appropriate field displayed in an associated region with different representations for each associated region; and

collecting a response from a golfer as to whether there is there another region needed to be collected, if "Yes" return to activating step, if "No" end.

5. A method of assisting golfers and improving their game comprising, in combination, the steps of:

providing a global positioning system device which is capable of accurately locating positions of any one of a plurality of landmarks on a golf course, the global positioning system device capable of electronically transmitting and receiving information with the device also capable of constructing a map of a landscape of a golf course;

providing a cellular technology device for providing mobile phone communication capabilities to golfers, the cellular technology device being able to transmit and receive information;

providing a wireless modem being able to link a communications system to a phone line and provide for data communication, the wireless modem being able to transmit and receive information;

providing a low power radio frequency transceiver for allowing functional communication between golfers and the clubhouse and any other entity requiring a form of communication, the low power radio frequency transceiver being able to transmit and receive information;

providing a cellular digital packet data technology device allowing for fast and cost effective transmission of data as required for interncomputer access, email and the like, the

cellular digital packet data technology device being able to transmit and receive information;

providing a handheld proprietary touch screen personal computer for a golfer;

transmitting and receiving information between the personal computer and a global positioning system device, a cellular technology device, a wireless modem, a low power radio frequency transceiver and a cellular digital packet data technology device;

providing an operating system to allow a golfer to interface with a computer;

providing software to perform programmed operations based upon the input and output of a personal computer to enable the system to work and assist the golfer by providing automated distance calculations, equipment indication, club selection, course management, scoring, statistics, cataloguing courses, and other functions in a synchronous and beneficial fashion for improved golfing performance;

activating the system to begin collecting latitude and longitude coordinates from a global positioning system at a rate of no less than one coordinate per second;

tracing a perimeter of a desired region such as a tee box, bunker, sand trap, green and fairway with the global positioning system collecting all points associated with the outline of that region to enable the computer to construct a map of the region;

ending the data collection by the manual disabling of the data collection;

importing a unique field into an electronically traced region, the field being representative of the region being traced;

forming a graphic representation of a newly traced region with an appropriate field displayed in the associated region with different representation for each associated region; and

collecting a response from a golfer as to whether there is there another region needed to be collected, if "Yes" return to activating step, if "No" end.